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OHIO EPA COMMENTS ON THE WATER MINIMIZATION AND GROUNDWATER SAMPLING EFFICIENCY: A NEW TECHNIQUE FOR PURGING GROUNDWATER MONITORING WELLS AT THE FEMP

01/10/94

OEPA/DOE-FN
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COMMENTS
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George V. Voinovich
Governor

January 10, 1994

Mr. Jack R. Craig
Project Manager
U.S. DOE FEMP
P.O. Box 398705
Cincinnati Ohio 45239-8705

Dear Mr. Craig:

Attached are Ohio EPA comments on the Waste Minimization and Groundwater Sampling Efficiency: A New Technique for Purging Groundwater Monitoring Wells at FEMP. If you have any questions about these comments please contact Mike Proffit.

Sincerely,

Graham E. Mitchell
Project Coordinator

GEM/laj

cc: Jenifer Kwasnigwski, DERR
Tom Schneider, DERR
Mike Proffitt, DDAGW
Jim Saric, U.S. EPA
Ken Alkema, FERMCO
Lisa August, GeoTrans
Jean Michaels, PRC
Robert Owen, ODH

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Ohio EPA Review of Waste Minimization and Groundwater Sampling Efficiency: A New Technique For Purging Groundwater Monitoring Wells At The Fernald Environmental Management Project, ID# 531-0297, Hamilton County.

1) Commenting Organization: Ohio EPA Commentor: DDAGW
Section #: Principles Pg #: 7 Line #: para 1 Code:
Original Comment #:
Comment: Specifically, how is the order of sensitivity and time for re-equilibration related to the pumping rate?

Response:

Action:

2) Commenting Organization: Ohio EPA Commentor: DDAGW
Section #: Principles Pg #: 7 Line #: bullet 2 Code:
Original Comment #:
Comment: Is the 1 l/min flow rate based upon measured ground water flow rates at the site?

Response:

Action:

3) Commenting Organization: Ohio EPA Commentor: DDAGW
Section #: Principles Pg #: 7 Line #: bullet 3 Code:
Original Comment #:
Comment: How is the water level measured to ensure that no drawdown occurs in the water column? How is the water level indicator probe inserted in the well so that the water column is not disturbed while measurements are obtained?

Additionally, how much "slop" is tolerated in Micro-Purging? If any drawdown is measured, then the water column has been disturbed. In this case, how much disturbance is considered tolerable, and how long must the monitoring well recover after such a disturbance in order to continue with Micro-Purging?

Response:

Action:

4) Commenting Organization: Ohio EPA Commentor: DDAGW
Section #: Principles Pg #: 8 Line #: Table 1 Code:
Original Comment #:
Comment: This table should be modified to include the type and size of sandpack used, type and installation details of the annular seals, and the thicknesses of both the sandpacks and seals.

Response:

Action:

5) Commenting Organization: Ohio EPA Commentor: DDAGW
Section #: Equipment Pg #: 8 Line #: para 1 Code:
Original Comment #:
Comment: If Micro-Purging does not disturb the water column, why were packers installed for the tests? Will packers be installed in all Micro-Purged monitoring wells?

Response:

Action:

6) Commenting Organization: Ohio EPA Commentor: DDAGW
Section #: Field Procedure Pg #: 9 Line #: para 3 Code:
Original Comment #:
Comment: Why were VOC's not included in the analyte list? Before Ohio EPA can approve of this sampling technique, the effects of Micro-Purging on dissolved VOC's must be detailed.

Response:

Action:

7) Commenting Organization: Ohio EPA Commentor: DDAGW
Section #: Field Procedure Pg #: 9 Line #: para 3 Code:
Original Comment #:
Comment: Why were samples analyzed only in the FEMP lab? Why were duplicates not taken and sent offsite for analyses? Is this planned?

Response:

Action:

8) Commenting Organization: Ohio EPA Commentor: DDAGW
Section #: Field Procedure Pg #: 9 Line #: para 4 Code:
Original Comment #:
Comment: It would seem that indicator parameters would be indicative of disturbance of the water column. How quickly was stabilization achieved and was there any fluctuation during sampling?

Response:

Action:

9) Commenting Organization: Ohio EPA Commentor: DDAGW
Section #: Field Parameters Pg #: 10 Line #: 1 Code:

Original Comment #:
Comment: What explanation of the fluctuation of indicator parameters does DOE offer? If samples were representative of in situ ground water, why would these parameters fluctuate?

Response:

Action: